

AMENDMENTS TO THE CLAIMS

Please amend claims 1-16, such that the status of pending claims 1-16 is as follows:

1.(Currently Amended) A composite filament mass for use in constructing a non-woven filter cartridge, the composite filament mass comprising:

a first cylindrical mass of essentially continuous, intertwined, and thermally bonded polymer filaments, the polymer filaments of the first mass having diameters of less than about 1.5 microns;

a second cylindrical mass of essentially continuous, intertwined, and thermally bonded polymer filaments adjacent to the first mass of polymer filaments, the polymer filaments of the second mass having diameters greater than about 1.5 microns, the second cylindrical mass surrounding the first cylindrical mass; wherein the filter ~~cartridge~~ has an efficiency in removing 1 micron particles greater than or equal to at least about 99.9%, and wherein a pressure drop across the filter ~~cartridge~~ is less than about 3 pounds per square inch for every gallon per minute of flow through a 10 inch long section of the filter ~~cartridge~~.

2.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 1 wherein the filaments of the first mass have diameters less than about 1 micron.

3.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 1 wherein the filaments of the second mass have diameters ranging from about 4 microns to about 10 microns.

4.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 1 wherein the pressure drop across the filter ~~cartridge~~ is about 1.5 pounds per square inch for every gallon per minute of flow through the 10 inch section of the filter ~~cartridge~~.

5.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 1 wherein the first mass of polymer filaments comprises a first filament zone and a second filament zone, the first filament zone defining a calendered layer having a density of filaments which is substantially greater than that of the second filament zone.

6.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 5 wherein the second filament zone surrounds the first filament zone.

7.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 6 wherein the calendered layer has a thickness of about 5 mils.

8. (Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 7 wherein the second filament zone and the second cylindrical mass are each substantially thicker than about 5 mils.

9.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 1 further comprising:

a transition region including filaments from the first mass intertwined with filaments from the second mass.

10.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 1 including a density gradient between the first filament mass and the second filament mass.

11.(Currently Amended) A composite filament mass for use in constructing a non-woven filter cartridge, the composite filament mass comprising:

a first cylindrical mass of essentially continuous, intertwined, and thermally bonded polymer filaments, the first mass of polymer filaments comprised of filaments

having a diameter of less than about 1.5 microns, wherein a portion of the first mass of polymer filaments forms a calendered layer; and
a second cylindrical mass of essentially continuous, intertwined, and thermally bonded polymer filaments disposed over the first mass of polymer filaments, at least some of the polymer filaments in the second mass being intertwined with some of the polymer filaments in the first mass, the second mass of polymer filaments comprised of filaments having a diameter of greater than about 1.5 microns;
wherein the filter ~~cartridge~~ has an efficiency in removing 1 micron particles of at least about 99.9% and wherein a pressure drop across the ~~cartridge~~ filter is less than about 3 pounds per square inch per gallon per minute of fluid flowing through a 10 inch long section of the filter ~~cartridge~~.

12.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 11 wherein the filaments of the first mass have diameters of between about 0.5 microns and about 1 micron.

13.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 11 wherein the filaments of the second mass have diameters ranging from about 4 microns to about 10 microns.

14.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 11 wherein the filaments of the second mass have diameters larger than the diameters of the filaments of the first mass.

15.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 11 wherein the calendered layer has a thickness of about 5 mils.

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16.(Currently Amended) The ~~non-woven filter cartridge~~ composite filament mass of claim 15 wherein the second cylindrical mass is substantially thicker than about 5 mils.